

REMARKS

Claims 10-20 were pending in the application when the office action was mailed. The Office Action rejects claims 10-20. Applicants have amended claim 20 and have not canceled or added any claims. Accordingly, claims 10-20 remain pending.

A. Analysis Under 35 U.S.C. § 101

The Office Action rejects claim 20 under 35 U.S.C. § 101. According to the Office Action, this claim "recites a mere arrangement of data which does not impart functionality when employed as a computer component." (Office Action, Page 3.) Applicants have amended claim 20 to clarify that the data structure is stored on the computer-readable medium. According to the USPTO's Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (United States Patent and Trademark Office OG Notices: 22 November 2005¹),

a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

(Annex IV (a) of the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility. Accordingly, applicants respectfully submit that this claim overcomes the 35 U.S.C. § 101 rejection.

B. Analysis Under 35 U.S.C. § 112

The Office Action also rejects claim 20 under 35 U.S.C. § 112, second paragraph, because it "recites a mere arrangement of data and does not constitute a system, method, or apparatus." Claim 20 now recites "computer memories collectively storing a data structure comprising a plurality of entries each corresponding to a different product." One skilled in the art would know that a computer memory is an apparatus that is generally

¹ Available online at <http://www.uspto.gov/go/og/2005/week47/patgupa.htm>.

employed as a component in a computing device. Applicants respectfully submit that this claim overcomes the 35 U.S.C. § 112 rejection.

C. Analysis Under 35 U.S.C. § 103(a)

The Office Action rejects claims 10-20 under 35 U.S.C. § 103(a) over the combination of U.S. Patent Application Publication No. 2004/0260600 ("Gross") and U.S. Patent No. 6,049,778 ("Walker"). Applicants respectfully traverse these rejections.

1. Applicants' Technology

Appellants' technology is generally directed to identifying as "early adopter picks" products that are disproportionately purchased by early adopters. Early adopters are customers who seek out cutting-edge products before the products reach mainstream popularity. In some embodiments, the technology determines a score for a product or item ("item score") identified as an early adopter pick. The item score may be scaled to positively relate the score to the product's price and negatively relate the score to the amount of time that has elapsed since the product became available for ordering. Item scores reflect the extent to which each item is considered to be an early adopter pick. (Appellants' specification, [0026].) In various embodiments, calculation of the item scores involves a mathematical product of the highest price for the item and a measure of the amount of time that has elapsed since the item became available for ordering. (Appellants' specification, [0042]). As an example, the score can be computed by employing the following formula:

$$(\text{highest price}) * e^{\text{Decay} * \text{days since launch date}}$$

In this formula, an item's score is computed by multiplying the highest price of an item by Euler's number ("e," which is approximately 2.71828) raised to the power of the product of a decay constant and the number of days since the item was launched. The decay constant is a negative number, such as -0.1. Thus, higher prices lead to higher scores and so the score is positively related to the price. In contrast, the longer the elapsed time since the product became available for ordering, the lower the score because

$e^{\text{Decay} * \text{days since launch date}}$ decreases as the "days since launch date" value increases. Thus, the score is negatively related to the time the product has been available for ordering. Appellants' specification also provides other formulae for computing scores that positively relate to price and negatively relate to time.

2. The Gross Reference

Gross is directed to a "system and method for determining and identifying demand for items based on observing behavior of trendsetters within a member population." (Gross, Abstract.) Trendsetters are "individuals who are characterized as relatively early adopters of items that later become relatively popular within the community of subscribers." (See Gross, [0040].) Gross provides techniques for identifying trendsetters within an online community, determining and scaling trendsetter ratings, identifying trend predictors within an online community, and identifying demand by an online community for a particular item. (See Gross, [0019], [0020], [0025], and [0031].) Gross identifies demand for an item based on the adoption of the item by trendsetters. (See Gross, [0031].)

3. The Walker Reference

Walker is directed to administering a reward program. A set of early adopters of a product are provided a reward (e.g., the purchase price) when sales of the product achieves a goal, such as when sales exceed some threshold value. (Walker, Abstract.) Whether or not a particular purchaser is in the set of early adopters depends on the purchaser's ordinal position in a range of positions. (Id.) "For example, if sales of a product exceeds 1,000,000 units, a reward is provided to each early-adopter purchaser" (Id.) and the first 100 purchasers are defined as early adopters.

4. The Combination of Gross and Walker Does Not Teach Or Suggest Claims 10-20

To reject a claim under 35 U.S.C. § 103(a), the factors of *Graham v. John Deere Co.*, 383 U.S. 1 (1966), must be considered by the Office. 72 Fed. Reg. 57528 (Oct. 10,

2007).² "Office personnel must then articulate the following: (1) a finding that the prior art included each element claimed." (Id.) The Office Action indicates that applicants' arguments in their appeal brief that Gross does not teach every element of every claim was persuasive. (Office Action, Page 2.) The Office Action now applies Walker (abstract and Figures 3-7) to teach or suggest "scaling the score in a manner that causes it to positively relate to the item's price and negatively relate to the amount of time that has elapsed since the item became available for ordering" as claims 10-19 recite. (Office Action, Page 4.) However Walker does not teach or suggest this feature at the cited portions. As previously mentioned, Walker's abstract merely discusses use of ordinal positions within a predetermined range of positions to determine whether a purchaser is an early adopter. The ordinal position has nothing to do with an amount of time. A first sale can occur on a particular day and a second sale can occur on the same day, a following day, a month later, a year later, or indeed a decade later. Walker's Figures 3-7 show how early adopters defined in terms of their ordinal positions are rewarded. The Office Action merely indicates "that Walker discloses rewards for early adopters that positively depend upon the cost of the item they purchased and when the item was purchased." (Office Action, Page 4.) The "when" relates to ordinal positions and not to time. Furthermore, this has nothing to do with negatively relating to the amount of time that has elapsed since an item became available for ordering as claims 10-19 recite. In Walker's technique, the last "early adopters" in a particular ordinal range would receive the same reward as the first early adopters in that range whether they purchased the item at the same time or one year later. (See Walker, Figures 5-6, which show that everyone in the first 100 ordinal positions receive the same reward.) Moreover, there is no teaching or suggestion in either Gross or Walker for "scaling the score in a manner that causes it to positively relate to the item's price and negatively relate to the amount of time that has elapsed since the item became available for ordering" as claims 10-19 recite, and the Office Action points to no other

² See <http://www.uspto.gov/web/offices/com/speeches/07-43.htm> and <http://www.uspto.gov/web/offices/com/sol/notices/72fr57526.pdf>.

reference as teaching or suggesting this feature. Thus, claims 10-19 are not obvious in view of Gross or Walker.

The Office Action rejects claim 20 under the same rationale as employed to reject claims 10-19. (Office Action, Page 6.) However, claims 10-19 do not recite "a data structure comprising a plurality of entries each corresponding to a different product, each entry comprising: information identifying the product to which the entry corresponds; and a score indicating the extent to which the product (1) has been ordered by customers who have been determined to commonly order items promptly after they become available, (2) has a high price, and (3) recently became available for ordering" as claim 20 recites. The Office Action points to nowhere in Gross, Walker, or any other reference as teaching or suggesting this feature. Thus, the Office Action does not even make a *prima facie* rejection of claim 20.

D. Conclusion

The independent claims each recite a novel combination of elements that is neither taught nor suggested by the applied references and so cannot be rejected under 35 U.S.C. § 102(b) or 35 U.S.C. § 103(a). Because the dependent claims import the limitations from the claims from which they depend, they also cannot be rejected under these statutes.

Based on these amendments and remarks, applicants respectfully request early allowance of this application. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 359-6478.

Applicant believes the required fees are being paid with this response. However, if any additional fee is due, please charge our Deposit Account No. 50-0665, under Order No. 249768079US from which the undersigned is authorized to draw.

Dated: 11/30/07

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